

Code: 15A03101b

B.Tech I Year I Semester (R15) Regular & Supplementary Examinations November/December 2018

ENGINEERING DRAWING
(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 70

(Answer all five units, 05 X 14 = 70 Marks)

UNIT – I

- 1 Two points F_1 and F_2 are located on a plane sheet 100 mm apart. A point P on the curve moves such that the difference of its distances from F_1 and F_2 always remains 50 mm. Find the locus of the point and name the curve. Mark asymptotes and directrices.

OR

- 2 Draw an epicycloid having a generating circle of diameter 50 mm and a directing curve of radius 100 mm. Also draw a normal and a tangent at any point M on the curve.

UNIT – II

- 3 An area of 144 sq cm on a map represents an area of 36 sq km on the field. Find the RF of the scale of the map and draw a diagonal scale to show km, hectometers and decameters and to measure up to 10 km. Indicate on the scale a distance 7 km, 5 hectometers and 6 decemeters.

OR

- 4 Draw the projections of the following point on a common reference line:

- (i) Point P is 20 mm above H.P and 30 mm in front of VP
- (ii) Point Q is 35 mm above H.P and 45 mm behind VP
- (iii) Point R is 42 mm below H.P and 55 mm behind VP
- (iv) Point S is 35 mm below H.P and 52 mm in front of VP
- (v) Point V is in V.P and 45 mm above HP.

UNIT – III

- 5 A line AB of 70 mm long has its end A at 10 mm above H.P and 15 mm in front of V.P. Its front view and top view measure 50 mm and 60 mm respectively. Draw the projections of the line and determine its inclinations with H.P and V.P.

OR

- 6 A pentagonal plane ABCDE 45 mm side has its plane inclined 45° to H.P. Its diameter joining the vertex B to the midpoint F of the base DE is inclined at 30° to the xy-line. Draw its projections keeping the corner B nearer to VP.

UNIT – IV

- 7 A hexagonal prism with a side of base 25 mm and axis 60 mm long is resting on one of its rectangular faces on H.P. Draw the projections of the prism when it is inclined at 45° to V.P.

OR

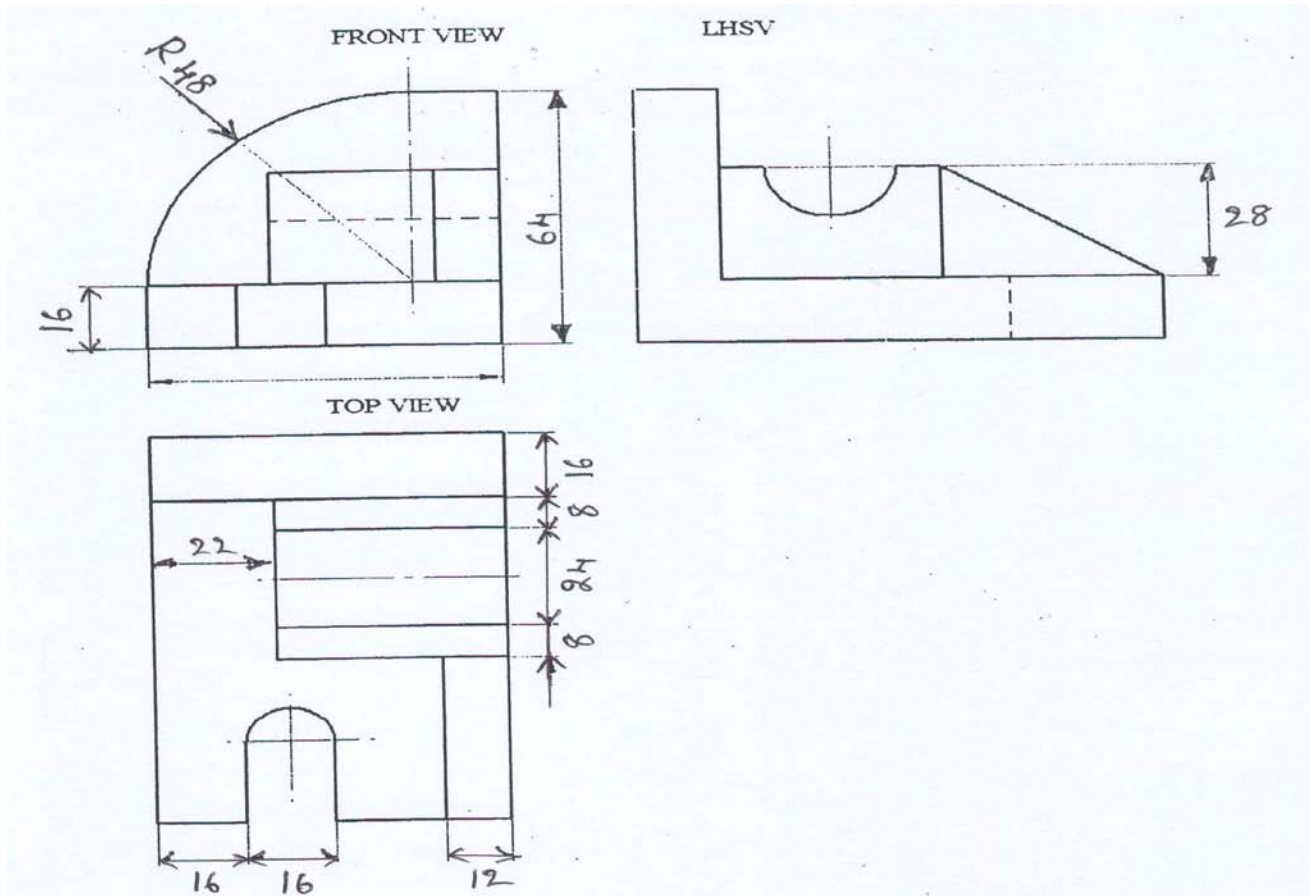
- 8 A pentagonal pyramid, side of base 30 mm and height 52 mm, stands with its base on HP and an edge of the base is parallel to VP and nearer to it. It is cut by a plane perpendicular to VP, inclined at 40° to HP and passing through a point on the axis, 32 mm above the base. Draw the sectional top view. Develop the lateral surfaces of the truncated pyramid.

Contd. in page 2

Code: 15A03101b

UNIT - V

- 9 Draw the isometric view of the given orthographic projection of the object. All dimensions are in mm. Assume any missing dimension.



OR

- 10 Make free hand sketches of the front, top and right side view of the object shown in figure below. All dimensions are in mm.

